

IN THE CLAIMS

Please enter the following amendments to the claims:

1. (Currently Amended) A system for testing a device, comprising:
- memory having a test application stored therein;
 - a test interface to connect to a device; and
 - a processor coupled to the memory and the test interface, the processor being configured to operate in accordance with the test application to:
 - i) provide a series of instructions based on a test procedure defining a device testing task, the test procedure including multiple test elements, each test element defining instructions and programmable input variables that direct the processor to perform a particular test operation of the device testing task, and
 - ii) control the test interface based on the provided series of instructions in order to test the device,

wherein each test element defines instructions for only a partial device testing task such that the multiple test elements together form a complete device testing task for testing the device.

2. (Original) The system of claim 1, further comprising:

an input/output device coupled to the processor, wherein the processor is further configured to operate in accordance with the test application to provide a graphical user interface on the input/output device through which a user directs the processor to:

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- (i) combine test elements from a test element database to form the test procedure;
 - (ii) set at least a portion of the programmable input variables of each test element forming the test procedure to initial values;
 - (iii) indicate an operating order for the test elements forming the test procedure; and
 - (iv) store the test procedure within the memory.

3. (Currently Amended) A system for testing a device, comprising:
memory having a test application stored therein;
a test interface to connect to a device; and
a processor coupled to the memory and the test interface, the
processor being configured to operate in accordance with the test
application to:
- i) provide a series of instructions based on a test
procedure defining a device testing task, the test
procedure including multiple test elements, each test
element defining instructions and programmable input
variables that direct the processor to perform a
particular test operation of the device testing task, and
 - ii) control the test interface based on the provided series
of instructions in order to test the device.

 ~~The system of claim 1~~ wherein the test procedure includes:

a first test element which defines instructions directing the processor to perform a first test operation that provides a first result; and
a second test element which defines a second set of instructions directing the processor to perform a second test operation that provides a second result which is based on the first result.

4. (Original) The system of claim 1 wherein the test procedure is a nested test procedure that is nested within another test procedure such that the processor provides instructions to perform the device testing task when providing instructions based on the other test procedure.

5. (Original) The system of claim 1 wherein the processor includes multiple processing units that are associated with respective multiple devices, and wherein each of the multiple processing units is configured to control a respective portion of the test interface based on the provided series of instructions to test the respective multiple devices in parallel.
6. (Original) The system of claim 1 wherein the processor includes multiple processing units that are associated with respective multiple devices, and wherein the multiple processing units are configured to control respective portions of the test interface based on instructions defined by a single instance of the test procedure to test the respective multiple devices in parallel.
- B¹ 7. (Original) The system of claim 1 wherein the device is a mixed signal device, and wherein the test procedure includes:
- a first test element which defines instructions directing the processor to perform an analog signal test operation; and
 - a second test element which defines instructions directing the processor to perform a digital signal test operation.
8. (Original) The system of claim 1 wherein the processor is further configured to:
- analyze the test procedure to identify which programmable input variables of the test elements of the test procedure require initial values; and
 - create a graphical user interface component which prompts a user to provide the required initial values to initialize the identified programmable input variables.

9. (Currently Amended) A method for testing a device, comprising the steps of:

obtaining a test procedure which defines a device testing task, the test procedure including multiple test elements, each test element defining instructions and programmable input variables that direct a processor to perform a particular test operation of the device testing task;

providing a series of instructions based on the test procedure; and

controlling a test interface based on the provided series of instructions in order to test the device, wherein the step of controlling the test interface includes the steps of:

based on a first test element, performing a first test operation that generates a first test result, and

based on a second test element, performing a second test operation that (i) obtains the first test result generated by the first test operation performed by the processor under direction of the first test element, and (ii) generates a second test result based on the first test result.

10. (Original) The method of claim 9, further comprising the steps of:

providing a graphical user interface on an input/output device through which a user directs the processor to:

- (i) combine test elements from a test element database to form the test procedure;
- (ii) set at least a portion of the programmable input variables of each test element forming the test procedure to initial values;
- (iii) indicate an operating order for the test elements forming the test procedure; and
- (iv) store the test procedure within a memory.

11. (Currently Amended) The method of claim 9 wherein the step of providing includes the steps of:

providing instructions directing the processor to perform a the first test operation that ~~provides a~~ generates the first test result based on a the first test element of the test procedure; and

providing instructions directing the processor to perform a the second test operation that ~~provides a~~ generates the second test result based on a the second test element of the test procedure, the second test result being based on the first test result.

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12. (Original) The method of claim 9 wherein the test procedure is a nested test procedure that is nested within another test procedure, and wherein the step of providing includes the step of:

providing instructions directing the processor to perform the device testing task when providing instructions based on the other test procedure.

13. (Original) The method of claim 9 wherein the test interface includes multiple processing units that are associated with respective multiple devices, and wherein the step of controlling the test interface includes the steps of:

operating each of the multiple processing units of the test interface based on the provided series of instructions to test each of the respective multiple devices in parallel.

14. (Original) The method of claim 9 wherein the test interface includes multiple processing units that are associated with respective multiple devices, and wherein the step of controlling the test interface includes the steps of:

operating the multiple processing units of the test interface based on instructions defined by a single instance of the test procedure to test each of the respective multiple devices in parallel.

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15. (Currently Amended) The method of claim 9 wherein the device is a mixed signal device, and wherein the step of providing includes the steps of:

providing instructions directing the processor to perform an analog signal test operation based on a one of the first and second test elements of the test procedure; and

providing instructions directing the processor to perform a digital signal test operation based on a another of the first and second test elements of the test procedure.

16. (Original) The method of claim 9, further comprising the steps of:

analyzing the test procedure to identify which programmable input variables of the test elements of the test procedure require initial values; and

creating a graphical user interface component which prompts a user to provide the required initial values to initialize the identified programmable input variables.

17. (Currently Amended) A method for providing a test procedure for testing a device, comprising the steps of:

combining test elements from a test element database to form a test procedure such that (i) the test procedure defines a device testing task, (ii) the test procedure includes multiple test elements, and (iii) each test element defines instructions and programmable input variables that direct a processor to perform a particular test operation of the device testing task;

setting at least a portion of the programmable input variables of each test element forming the test procedure to initial values;

indicating an operating order for the test elements forming the test procedure; and

storing the test procedure within a memory,

wherein the step of indicating the operating order includes the step of:

designating a first test element that directs the processor to perform a first test operation that generates a first test result ahead of a second test element that directs the processor to perform a second operation that (i) obtains the first test result generated by the first test operation performed by the processor under direction of the first test element, and (ii) generates a second test result based on the first test result.

18. (Original) The method of claim 13 further comprising the step of:
nesting the test procedure within another test procedure.

19. (Currently Amended) The method of claim 13 wherein the device is a mixed signal device, and wherein the step of combining includes the steps of:

incorporating a one of the first and second test elements into the test procedure, the one of the first and second test elements defining instructions which direct the processor to perform an analog signal test operation; and

incorporating a another of the first and second test elements into the test procedure, the other of the first and second test elements defining instructions which direct the processor to perform a digital signal test operation.

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Previously Added) The system of claim 1 wherein each test element of a set of test elements within the test procedure corresponds to a particular signal used by the device.

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25.(Currently Amended) A system for testing a device, comprising:memory having a test application stored therein;a test interface to connect to a device; anda processor coupled to the memory and the test interface, the processor being configured to operate in accordance with the test application to:

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- i) provide a series of instructions based on a test procedure defining a device testing task, the test procedure including multiple test elements, each test element defining instructions and programmable input variables that direct the processor to perform a particular test operation of the device testing task, and
 - ii) control the test interface based on the provided series of instructions in order to test the device.

The system of claim 1 wherein the test procedure includes:

a first test element that directs the processor to perform a first test operation that generates a first test result; and

a second test element that directs the processor to perform a second operation that (i) obtains the first test result generated by the first test operation performed by the processor under direction of the first test element, and (ii) generates a second test result based on the first test result.

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26.(Currently Amended) A system for testing a device, comprising:memory having a test application stored therein;a test interface to connect to a device;a processor coupled to the memory and the test interface, the processor being configured to operate in accordance with the test application to:

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- i) provide a series of instructions based on a test procedure defining a device testing task, the test procedure including multiple test elements, each test element defining instructions and programmable input variables that direct the processor to perform a particular test operation of the device testing task, and
 - ii) control the test interface based on the provided series of instructions in order to test the device; and

The system of claim 1, further comprising:

a test element database which stores a first test element having instructions that direct the processor to perform an analog signal operation, and a second test element having instructions that direct the processor to perform a digital signal operation, wherein the test procedure is configured to direct the processor to the first and second test elements to perform a mixed signal test based on the first and second test elements.

27. (Canceled)

28. (Canceled)

29. (Canceled)

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